

In the Claims:

Please cancel claims 45-52 without prejudice. Claims 1-44 remain unchanged and appear below for the Examiner's convenience.

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1. (Original) A method comprising:
receiving a request to write data to a logical sector address of a flash memory medium;
assigning a free physical sector address to the logical sector address forming a corresponding relationship between the addresses;
storing the corresponding relationship between the addresses in a data structure; and
writing the data into a physical sector of the flash memory medium at a location indicated by the free physical sector address.
 2. (Original) The method as recited in Claim 1, wherein the data structure is contained in at least one memory device other than the flash memory medium.
 3. (Original) The method as recited in Claim 1, wherein the data structure is contained in a random access memory device.
 4. (Original) The method as recited in Claim 1, wherein the request is received from a file system.

5. (Original) The method as recited in Claim 1, further comprising
storing the logical sector address in the physical sector of the flash memory
medium along with the data.

6. (Original) The method as recited in Claim 1, further comprising:
storing the logical sector address in the physical sector of the flash
memory medium along with the data;

if the data structure is erased, then scanning the flash memory
medium to locate the logical sector address stored with the data;

assigning the physical sector address containing the data to the
logical sector address forming a reestablished corresponding relationship between
the addresses; and

storing the reestablished corresponding relationship between the
addresses in a new data structure.

7. (Original) One or more computer-readable media comprising
computer-executable instructions that, when executed, perform the method as
recited in Claim 1.

8. (Original) A method, comprising:
receiving a request to retrieve data stored in the flash memory
medium from a location indicated by a logical sector address;
locating a physical sector address corresponding to the specific
logical sector address from a data structure; and

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1 reading the data stored in the flash memory medium from the
2 physical sector address retrieved from the data structure.

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4 9. (Original) The method as recited in Claim 8, further comprising:
5 storing the logical sector address with the data in the flash memory
6 medium at a location indicated by the physical sector address;

7 reestablishing a portion of the data structure in the event of a power
8 interruption, by scanning the physical sector address for the associated logical
9 sector address; and

10 storing the logical sector address in the data structure at a location
11 corresponding to the physical sector address.

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13 10. (Original) The method as recited in Claim 8, wherein the request
14 is received from a file system.

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16 11. (Original) The method as recited in Claim 8, wherein the data
17 structure is maintained by a flash abstraction logic of a flash memory driver.

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19 12. (Original) The method as recited in Claim 8, wherein reading the
20 data is performed by a flash media logic of a flash memory driver.

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22 13. (Original) The method as recited in Claim 8, further comprising
23 storing the data structure in a volatile memory device.

14. (Original) The method as recited in Claim 8, the method being performed by a flash memory driver.

15. (Original) A method, comprising:

- receiving a request to write data to a logical sector address of a flash memory medium;
- assigning a physical sector address to the logical sector address forming a corresponding relationship between the addresses;
- storing the corresponding relationship between the addresses in a data structure;
- writing the data into a physical sector of the flash memory medium at a location indicated by the physical sector address; and
- writing the logical sector address in the physical sector of the flash memory medium along with the data.

16. (Original) The method as recited in Claim 15, further comprising:

- if the data structure is erased, then scanning the flash memory medium to locate the logical sector address stored with the data;
- assigning the physical sector address containing the data to the logical sector address forming a reestablished corresponding relationship between the addresses; and
- storing the reestablished corresponding relationship between the addresses in a new data structure.

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17. (Original) The method as recited in Claim 15, wherein writing the logical sector address in the physical sector of the flash memory medium includes writing the logical sector address into a spare portion of the physical sector.

18. (Original) The method as recited in Claim 15, wherein the data structure is contained in at least one memory device other than the flash memory medium.

19. (Original) The method as recited in Claim 15, wherein the data structure is contained in a random access memory device.

20. (Original) The method as recited in Claim 15, wherein the request is received from a file system.

21. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in Claim 15.

22. (Original) A method comprising:

- (a) receiving a request to write data to a logical sector address of a flash memory medium;
- (b) assigning a physical sector address to the logical sector address forming a corresponding relationship between the addresses;
- (c) storing the corresponding relationship between the addresses in a data structure;

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1 (d) writing the data into a physical sector of the flash memory
2 medium at a location indicated by the physical sector address;

3 (e) receiving a request to rewrite updated data to the logical
4 sector address;

5 (f) assigning a new physical sector address to the logical sector
6 address forming a corresponding relationship between the new physical sector
7 address and the logical sector address;

8 (g) storing the corresponding relationship between the addresses
9 from the aforementioned paragraph (f) in the data structure;

10 (h) writing the updated data into a physical sector of the flash
11 memory medium at a location indicated by the new physical sector address; and

12 (i) marking the physical sector address from the aforementioned
13 paragraph (b) as dirty.

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15 23. (Original) The method as recited in Claim 22, wherein the data
16 structure is contained in at least one memory device other than the flash memory
17 medium.

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19 24. (Original) The method as recited in Claim 22, wherein the data
20 structure is contained in a random access memory device.

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22 25. (Original) The method as recited in Claim 22, wherein the
23 requests are received from a file system.
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1 26. (Original) The method as recited in Claim 22, wherein the data
2 structure is maintained by a flash abstraction logic of a flash memory driver.

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4 27. (Original) One or more computer-readable media comprising
5 computer-executable instructions that, when executed, perform the method as
6 recited in Claim 22.

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8 28. (Original) A system, comprising:
9 flash medium logic, configured to store data in a physical sector of a
10 flash memory medium;
11 a table, configured to map logical sector addresses received from a
12 file system to physical sector addresses on the flash memory medium; and
13 flash abstraction logic, configured to ascertain a next free physical
14 sector on a flash memory medium and assign an address associated with the free
15 physical sector to a logical sector address associated with a write request received
16 from the file system.

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18 29. (Original) The system as recited in Claim 28, wherein the flash
19 abstraction logic is further configured to update the map of the logical sector
20 addresses to the physical sector addresses, after assigning the address associated
21 with the free physical sector to the logical sector address associated with the write
22 request.

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1 30. (Original) The system as recited in Claim 28, wherein the flash
2 medium logic marks a physical sector address as dirty after contents associated
3 with the physical sector address are rewritten to a new physical sector address.
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5 31. (Original) The system as recited in Claim 28, wherein the flash
6 medium logic is further configured to store the logical sector address within a
7 portion of the physical sector associated with the write request.
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9 32. (Original) The system as recited in Claim 28, wherein the flash
10 medium logic is further configured to:

11 store the logical sector address within a portion of the physical sector
12 associated with the write request; and

13 scan the flash memory medium for the portion of the physical sector
14 storing the logical sector address after initialization of the system.
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16 33. (Original) The system as recited in Claim 28, wherein the table is
17 contained in a memory device other than the flash memory medium.
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19 34. (Original) The system as recited in Claim 28, wherein the table is
20 contained in a random access memory device.
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22 35. (Original) The system as recited in Claim 28, wherein the system
23 is a flash driver system.
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1 36. (Original) A computer-readable medium for a flash driver,
2 comprising computer-executable instructions that, when executed, direct the flash
3 driver to:

4 receive a request to write data to a logical sector address of a flash
5 memory medium;

6 assign a physical sector address to the logical sector address forming
7 a corresponding relationship between the addresses;

8 store the corresponding relationship between the addresses in a table;
9 and

10 write the data into a physical sector of the flash memory medium at a
11 location indicated by the physical sector address.

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13 37. (Original) A computer-readable medium for a flash driver,
14 comprising computer-executable instructions that, when executed, direct the flash
15 driver to:

16 receive a request to write data to a logical sector address of a flash
17 memory medium;

18 assign a physical sector address to the logical sector address forming
19 a corresponding relationship between the addresses;

20 store the corresponding relationship between the addresses in a table;

21 write the data into a physical sector of the flash memory medium at a
22 location indicated by the physical sector address;

23 write the logical sector address in the physical sector of the flash
24 memory medium along with the data;
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1 if the table is erased, then scan the flash memory medium to locate
2 the logical sector address stored with the data;

3 assign the physical sector address containing the data to the logical
4 sector address forming a reestablished corresponding relationship between the
5 addresses; and

6 store the reestablished corresponding relationship between the
7 addresses in a new table.

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9 38. (Original) A system for tracking sectors in a flash memory
10 medium, comprising:

11 means for receiving a request to retrieve data stored in the flash
12 memory medium from a location indicated by a logical sector address;

13 means for locating a physical sector address corresponding to the
14 specific logical sector address from a table; and

15 means for reading the data stored in the flash memory medium from
16 the physical sector address retrieved from the table.

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18 39. (Original) The system as recited in Claim 38, further comprising:

19 means for storing the logical sector address with the data in the flash
20 memory medium at a location indicated by the physical sector address;

21 means for reestablishing a portion of the table in the event of a
22 power interruption, by scanning the physical sector address for the associated
23 logical sector address; and

24 means for storing the logical sector address in the table at a location
25 corresponding to the physical sector address.

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2 40. (Original) The system as recited in Claim 38, wherein the request
3 is received from a file system.
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5 42. (Original) The system as recited in Claim 38, wherein the table is
6 maintained by a flash abstraction logic of a flash driver.
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8 43. (Original) The system as recited in Claim 38, wherein the means
9 for reading of the data is performed by flash media logic of a flash driver.
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11 44. (Original) The system as recited in Claim 38, wherein the
12 memory device is a type of random access memory.
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14 45-52. (Canceled)
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